

Alaska Department of Fish and Game  
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration  
Annual Performance Report  
Survey-Inventory Activities  
1 July 1997 – 30 June 1998

# DEER

Mary V. Hicks, Editor

Grant W-27-1  
Study 2.0  
September 1998

**Project Title:** Southeast Deer Population Management

**Project Location:** Unit 1A (5,000 mi<sup>2</sup>)  
Ketchikan area including mainland areas draining into Behm and Portland Canals

Unit 2 (3,900 mi<sup>2</sup>)  
Prince of Wales Island and adjacent islands south of Sumner Strait and west of Kashevarof Passage and Clarence Strait

**Project Objectives and Activities:**

- Maintain deer populations in excess of 45 deer per mi<sup>2</sup> of winter range (1.4 pellet-groups per plot) in Units 1A and 2
- Use pellet-group surveys to monitor deer densities

**Work Accomplished During the Project Segment Period:** We completed deer pellet-group surveys in 8 Value Comparison Units (VCUs) within Unit 1A and 13 VCUs within Unit 2. We estimated deer harvest from regional questionnaires mailed to a random sample of deer hunters.

**Progress Meeting Project Objectives:** Pellet-group data indicated the 45 deer/mi<sup>2</sup> density objective was not met in any of the 23 sampled VCUs. Estimated densities in Unit 1A ranged from 14 deer/mi<sup>2</sup> in Helm Bay to 43 deer/mi<sup>2</sup> on Gravina Island. Unit 2 densities ranged from 9 deer/mi<sup>2</sup> at Sarkar to 41 deer/mi<sup>2</sup> at Warm Chuck. Of the 21 VCUs sampled during 1998, 2 were nearly the same as when last sampled (VCUs 561 and 575) and 19 were lower than when last sampled (VCUs 527, 532, 549, 554, 578, 584, 587, 621, 625, 628, 635, 716, 748, 752, 758, 759, 765, 769, and 999). We suspect the widespread low counts we observed were due primarily to the unusually mild weather conditions experienced in southern Southeast Alaska during winter 1997/98. More deer than usual probably wintered above 1500 feet, which corresponds with the upper limit of our pellet transects. We believe deer populations remained stable in Units 1A and 2 during this report period.

**Project Location:** Unit 1B (3,000 mi<sup>2</sup>)  
Southeast Mainland from Cape Fanshaw to Lemesurier Point

Unit 3 (3,000 mi<sup>2</sup>)  
All islands west of Unit 1B, north of Unit 2, south of the centerline of Frederick Sound, and east of the centerline of Chatham Strait

**Project Objectives and Activities:** Increase populations on deer winter range (<1500 ft elevation) to 32 deer/mi<sup>2</sup>, measured by a mean pellet density of 1.0 pellet-group/20 m<sup>2</sup> plot.

- Monitor deer densities using pellet-group surveys

**Work Accomplished During the Project Segment:** We completed spring pellet group surveys at Castle River, East Duncan, Portage Bay, Woewodski, and Horn Cliffs, resulting in values of 0.36, 1.04, 0.37, 1.10, and 0.59 pellet-groups/plot, respectively. Twenty additional deer were fitted with radio collars on Mitkof Island in the cooperative study with the U.S. Forest Service, bringing the total number of collared deer in the study to 45.

We estimated harvest data for Units 3 and 1B from a regional questionnaire mailed to a random sample of deer harvest ticket holders.

**Progress Meeting Project Objectives:** Deer pellet surveys met project objectives in the Woewodski survey area on Mitkof Island and the East Duncan survey area on the Lindenberg Peninsula. The Castle River and Portage Bay survey areas on Kupreanof Island and the newly established Horn Cliff survey area on the mainland did not meet objective goals. Results from the 1997/98 hunter questionnaire indicate 152 hunters harvested 105 deer in Unit 1B and 1108 hunters harvested 780 deer in Unit 3. The highest harvest was on Zarembo Island where 421 hunters harvested 407 deer.

The Forest Service monitored 32 radiocollared deer on Mitkof Island. During this report period 7 radiocollared deer died; 1 was killed by a car, 3 by wolf predation, 1 by legal hunter harvest, 1 by poaching, and 1 from unknown causes.

**Project Location:** Unit 1C (7,600 mi<sup>2</sup>)  
Southeast mainland and the islands of Lynn Canal and Stephens Passage lying between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and the drainages of Berners Bay

**Project Objectives and Activities:**

- Maintain population densities on Douglas, Lincoln, and Shelter islands at high levels as reflected by a mean pellet density of 2.00 pellet groups per plot
- Monitor harvest
- Participate in public planning meetings
- Participate in annual deer pellet survey

**Work Accomplished During the Project Segment Period:** Preliminary harvest data from the regional mail questionnaire sent to a stratified sample of deer hunters indicated 438 deer were taken within the unit, with bucks composing 78% of the harvest. Successful hunters spent an average of 1.6 days for each deer harvested. For the second consecutive year, low snowfall accumulations allowed deer to remain dispersed throughout their habitat through the hunting season. Snowfall remained low throughout the winter and probably contributed to good winter survival. As a result, deer populations in the unit probably increased.

Pellet group surveys were completed at Point Hilda (Inner Point) and North Douglas on Douglas Island. At North Douglas 321 plots were measured in 3 transects with a mean of 1.55 pellet groups per plot. A total of 280 plots in 3 transects were examined at Inner Point and mean pellet

density was 0.84 pellet groups per plot. Lincoln Island pellet transects (207 plots) yielded an average of 1.57 groups per plot. The pellet group densities at North Douglas established a new record, while a few miles away at Inner Point pellet group densities fell to about one third of the level measured the previous year.

**Progress Meeting Project Objectives:** This year's pellet group densities were higher at North Douglas than in the previous year but considerably lower at Inner Point where record densities were recorded the year before. Our surveys revealed no winter-killed animals, and it is speculated deer in this area predominantly wintered above 1500 feet elevation because of low snow levels. Logging slash left from selective logging efforts may have hampered deer movement at low elevations, but logging activity ceased before the onset of winter and little slash was present on the higher slopes.

**Project Location:** Unit 4 (5,800 mi<sup>2</sup>)  
Admiralty, Baranof, Chichagof, and adjacent islands

**Project Objectives and Activities:**

- Maintain a population density of deer capable of sustaining an average harvest of at least 1.5 deer per hunter, a minimum success rate of 1 deer killed per 4 days hunting, and a reported male deer harvest of at least 60% of the total kill
- Collect population data through fecal pellet surveys, use a hunter survey to determine harvest and effort information, and conduct deer mortality transects in key areas as needed

**Work Accomplished During the Project Segment Period:** We worked with the U.S. Forest Service to measure deer population trends by pellet-group surveys and subsequent analyses. We distributed deer hunter harvest tickets and analyzed harvest reports. We also mailed a survey questionnaire to a sample of harvest ticket holders to compile deer hunter effort and success information. Limited spring mortality transects were completed near Sitka.

**Progress Meeting Project Objectives:** From extrapolations of the deer hunter survey and examination of hunter harvest reports, we met the first set of objectives. The percentage of males in the reported harvest from Unit 4 has been in excess of 60% since the 1992/93 season. Deer pellet-group surveys were conducted during spring 1998 in 6 areas within Unit 4, generally on northern Baranof and western and northern Chichagof islands. All transects indicated deer populations were equal to or higher than previous counts. Winter mortality transects completed near Sitka revealed very little starvation mortality. Because of the mild winter of 1997/98, deer populations in Unit 4 are continuing to increase.

**Project Location:** Unit 5 (5,800 mi<sup>2</sup>)  
Cape Fairweather to Icy Bay, eastern Gulf Coast

**Project Objectives and Activities:** No management objectives have been established for deer within Unit 5.

**Work Accomplished During the Project Segment Period:** We monitored harvest through the regional mail questionnaire. Preliminary results indicate the harvest was 15 deer.

No pellet-group surveys were conducted this year. Anecdotal evidence indicates wolves may be affecting deer numbers on the small islands in Yakutat Bay. Since this is the only relatively snow-free habitat in the area, heavy predation pressure on the islands may cause a significant decline in this introduced deer population.

**Progress Meeting Project Objectives:** In the absence of objectives, no specific tasks were accomplished.

**Segment Period Project Costs:**

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	51.4	40.8	92.2
Actual	51.4	40.8	92.2
Difference	0.0	0.0	0.0

**Submitted by:**

Bruce Dinneford  
Management Coordinator

**Project Title:** Southcentral Alaska Deer Management

**Project Location:** Game Management Unit 6 (10,140 mi<sup>2</sup>)  
Prince William Sound, northern Gulf Coast

**Project Objective:** Maintain a deer population in Unit 6 that will sustain an annual harvest of 1500 deer, with a minimum annual harvest of 60% males and minimum hunter success rate of 50%.

**Work Accomplished during the Project Segment period:** We monitored hunting activities and harvest by a mail questionnaire. Total harvest was 2525, with males composing 71% of the harvest. Success rate was 66%, and each successful hunter harvested an average of 1.7 deer. Montague Island provided 39% of the harvest, while Hinchinbrook and Hawkins Islands produced 17% and 17%, respectively.

**Progress Meeting Objectives:** We achieved all objectives. The population was able to sustain a harvest of 1500 and the proportion of males in the harvest exceeded 60%. The success rate was greater than 50%.

**Project Location:** Unit 8 (8,750 mi<sup>2</sup>)  
Kodiak and adjacent islands

**Project Objective and Activities:** Maintain a deer population that will sustain an annual harvest of at least 8000 deer.

**Work Accomplished in Segment Period:** We monitored hunting activities and harvest by a mail questionnaire. Preliminary results indicated the 1996 harvest was 8709 deer, with 79% males. Seventeen percent of the harvest was from Afognak, Raspberry, and Shuyak islands; 83% of the harvest was from Kodiak and small adjacent islands. Hunter success was 82%, and successful hunters averaged 2.0 deer per hunter. The average number of days hunted was 5.5 days per hunter. Boats were the most common means of transportation (49%); hunters also used aircraft (33%) and highway vehicles (13%). Most hunters were from Kodiak Island (39%), Anchorage (26%), or other Alaskan locations (27%). Only 8% of the hunters were nonresidents.

Winter mortality on Kodiak Island was moderate, with fewer deer dying during the 1997/98 winter than in previous years.

**Progress Meeting Objectives:** Preliminary results from the hunter questionnaires indicated the harvest has exceeded the 8000 deer objective for each of the last 3 years. Hunter's comments on questionnaires suggest the deer population on Kodiak Island has recovered from the population declines experienced in the mid 1980s.

**Segment Period Project Costs:**

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	30.0	13.3	43.3
Actual	30.0	13.3	43.3
Difference	0.0	0.0	0.0

**Submitted by:**

Michael G. McDonald  
Assistant Management Coordinator